

Tel Foreign C with S unts

Israel's first and largest banking group, with over US\$20 billion in assets, welcomes you to our Foreign Resident and Tourist Centers. Visit us for all your banking needs.

- E
- C
- on your VISA credit card
- Redemption of State of Israel Bonds
- Unrestricted, tax-free foreign currency time deposits
- Expert financial counselling for the investment-minded
- Securities accounts
- Advisory and brokerage services for trading on the Tel Aviv and other international stock exchanges
- Money Desk for forward, spot and trade deals in foreign currencies and precious metals
- Trust and Property management programs
- Sole distributorship (in Israel) of Kruggerand gold coins

Foreign Resident and Tourist Centers
Tel Aviv
130 Ben Yehuda St.
Tel. (03)229231
Jerusalem
47 Jaffa Rd.
Tel. (02)227471/2
Haifa
123 Hanassi Blvd.
Tel. (04)86141

Information
this coupon to:

The Manager
Foreign Resident and
Tourist Center
130 Ben Yehuda St.
Tel Aviv, 63401
or: The Manager
Foreign Resident and
Tourist Center
47 Jaffa Rd.
Jerusalem 94221

Name.....
Address.....
Telephone.....
I am in Israel until (date).....
Address in Israel.....
Telephone in Israel.....

Head Office: 24-32 Yehuda Halevi Street, Tel Aviv, Tel: (03) 632111

bank leumi **בנק לאומי**



THE JERUSALEM
POST
Supplement

Tuesday, September 7, 1982

Kibbutz industries



Visit the KIBBUTZ INDUSTRIES EXHIBITION at the Tel Aviv Fair Grounds

Open daily:
Sunday till Thursday 5-11 p.m.
Saturday evening 7 p.m. midnight

6-15.9.82

200

Industrial Plants

Interesting exhibits, and sale of quality products at reduced prices — plastic, metal, electronic, electric and optical goods; foodstuffs; guest houses. The best of Kibbutz Industries.

The Kibbutz in 1982

Communal living, the freedom of the individual in a cooperative framework, a working society, original creativity. All in an audio-visual exhibition of varied character, showing the face of the kibbutz in 1982.

Special Activities for Children

Kibbutz artists and teachers give children visiting the exhibition the chance to participate in creative activities — painting workshops open to all, or theatre games with the Kibbutz Theatre company.

Kibbutz Art

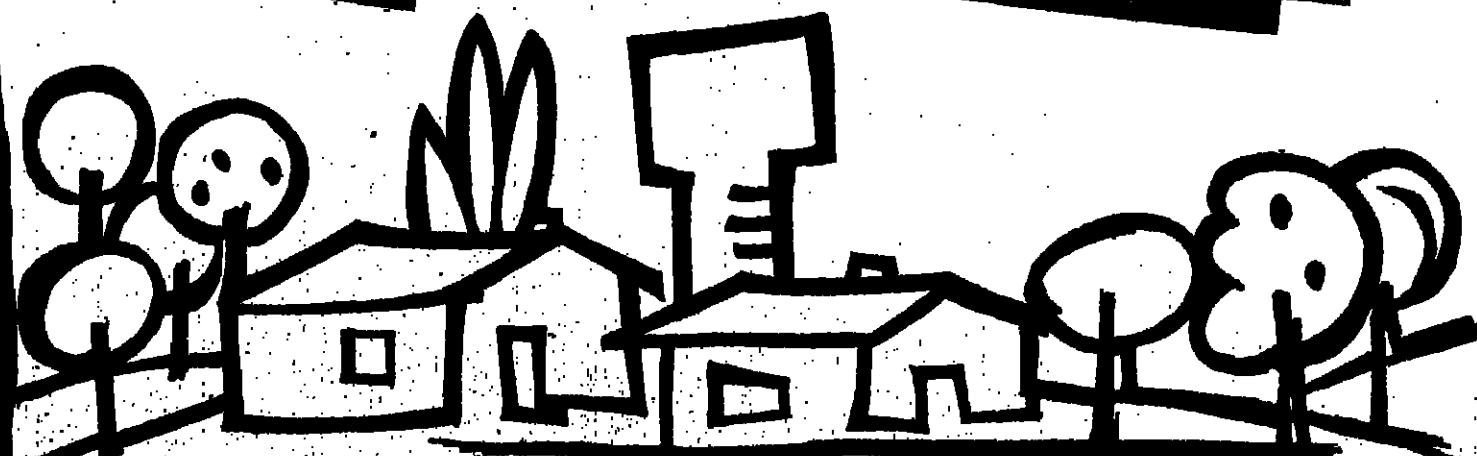
The artist, an integral part of the kibbutz scene. Exhibitions of paintings, sculpture, art photography, ceramics and silk-screen prints.

Tomorrow, Sept. 8,

study day (courtesy of United Mizrahi Bank) on the integration of agriculture and industry in rural settlements (the kibbutz structure).

Entertainment

Popular entertainment, with the Gevatron, and Saraleh Sharon; Naomi Shemer with the Beit Alfa troupe. "Pina Be'Ek" with Tzavta Yisre'el and others.



100 Years of Settlement

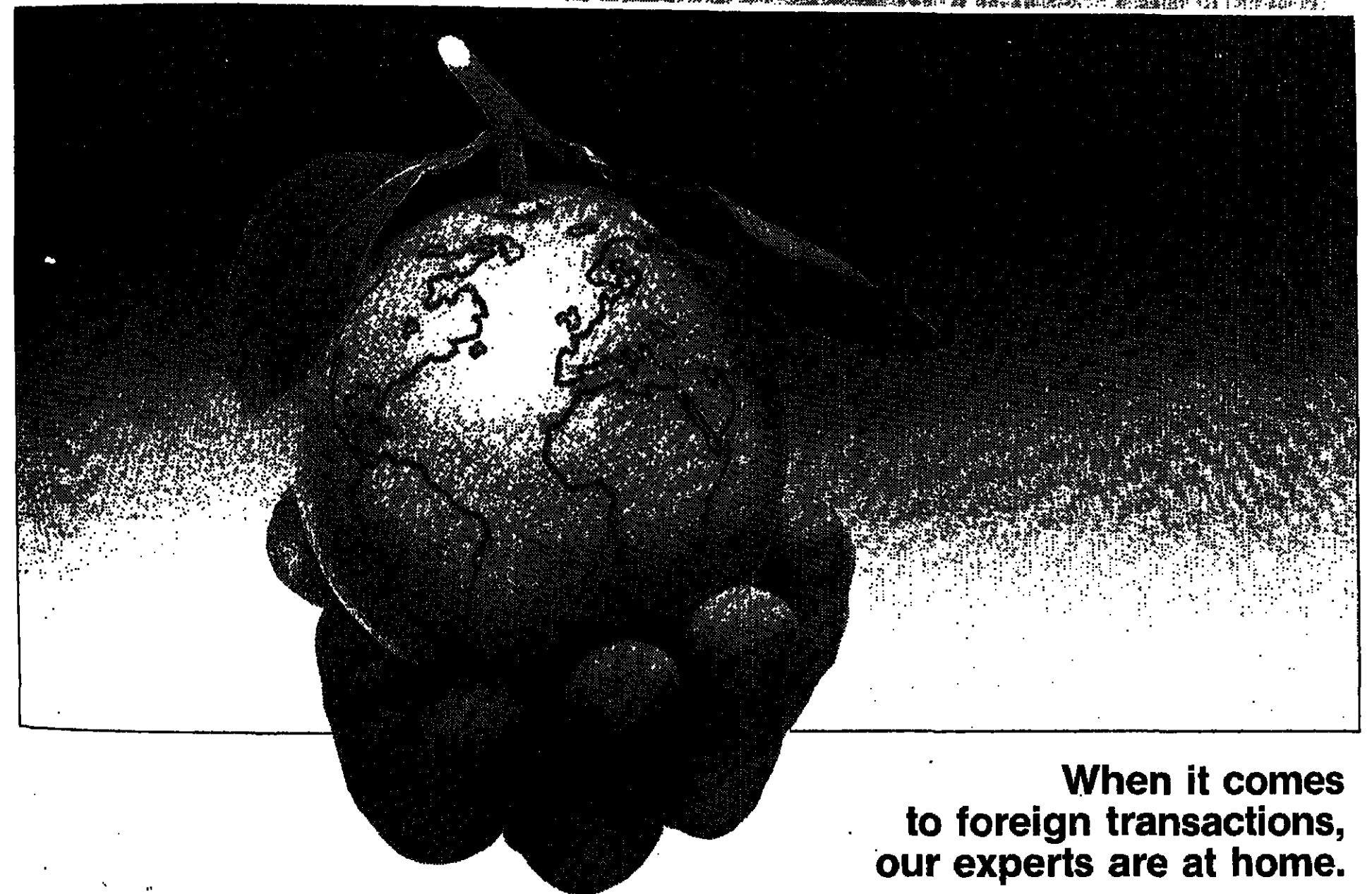
THE ISRAEL TRADE FAIRS CENTER LTD.

Tel Aviv Fair Grounds, Sderot Rokah, Tel. 03-474131

For organized groups and Workers' Committees tickets available at Kestel Ticket Office. Tel. 03-444726

Ours is the only bank with
80 years of experience in
import-export and 66 foreign
branches and representative offices.

Moshe Behar, Main Branch, Tel-Aviv



When it comes
to foreign transactions,
our experts are at home.

Bank Leumi Le-Israel banking group serves you with a large international network of 451 branches, subsidiaries and representative offices including 66 in major financial centers around the world: New York (27 branches), Los Angeles, Miami, Chicago, Philadelphia, London (5 branches), Paris (2 branches), Marseille, Strasbourg, Lyon, Nice, Zurich, Geneva, Frankfurt a/M, Milan, Brussels, Antwerp, Montevideo, Mexico City, Panama City, Caracas, São-Paulo, Buenos-Aires, Cayman Islands, Toronto, Curacao, Bahamas, Johannesburg, Hong-Kong.



People with people in mind.



בנק לאומי bank leumi

TUESDAY, SEPTEMBER 7, 1982

THE JERUSALEM POST — KIBBUTZ INDUSTRIES SUPPLEMENT

PAGE THREE

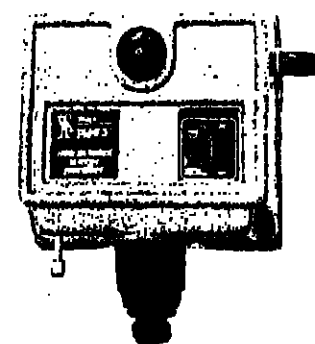
The Taste of it...



Have you ever enjoyed the taste of pure spring water bubbling out of a rock on a hot summer day? There's nothing like it. Those of you unfortunate enough never to have tasted anything but chlorinated, chemically processed recycled "branch" water will never know what crystal pure, natural water can taste like... unless they try TAMI 3.

There is that pure, wonderful taste again... reminding you of unpolluted rushing creeks tumbling over mountainsides. In TAMI 3 Israeli science has combined three different filtering systems to ensure that all injurious micro-organisms and unpleasant flavors are removed while the original, natural goodness of the spring water is left in.

Whether you drink TAMI 3 - filtered water straight or mix it with fruit juices or alcoholic beverages — the difference must be tasted to be believed. It's indescribable — but try it once and you'll never mistake it for water from an ordinary filter. And if you need filters for agricultural, research or industrial applications... there are similar TAMI filters in all sizes for any purpose. No less a scientific institution than the Haifa Technion has tested TAMI 3 and their conclusions are: "... When used properly this water purifying appliance will ensure production of clear and germ-free drinking water, and has been found effective even with turbid water, polluted with a large number of micro-organisms..." We can say no more.



Kibbutz Netiv Ha Lamed-He D.N. Haifa 99855. Israel Tel. 02-913071

הטכניון - מכון טכנולוגי לישראל
TECHNION CITY, HAIFA TEL: 226578 טל: 32 000
Department of Food Engineering and Biotechnology

T.N.H. Co.,
Nativ Halamed-He

Re: Tami-3

According to your request we have examined the capability of your water purifier TAMI-3 in filtration and sterilization of potable water.

Results

Tap water contaminated by: (1) 0.05% diatoms-earth preparation (Celite standard supercel, John Manville Corp., U.S.A.) together with a E.coli-B bacterial suspension (10^6 cells/ml); (2) 0.1% sludge from a sewage water plant that was found to contain about 2×10^6 heterotrophic bacteria per ml. The water was pumped through TAMI-3 as instructed by you in a rate of one liter per minute. In both cases the out flow water were clear (a decrease of at least 100 fold in turbidity) and free from bacteria (≈ 1 cell/ml).

The absorbance capability of the active charcoal column that is placed in TAMI-3 was not tested. However, it is known that such column absorb many chemicals including those that contribute to the add odor of water. It thus seems that TAMI-3 is highly suitable for obtaining bacteria-free clean potable water.

Yours sincerely,

S. Ulitzur
Prof. S. Ulitzur.

Tami 3 - Pure from the first drop

33% discount during the Kibbutz Industries Fair at the following sales points:

Jerusalem: Shimon Zaidok, 4 Cheliov, Kiryat Hayovel, Tel. 02-413535; Water-Pick, 214 Mercat Cial, Tel. 02-244556; Abu, Jaffa Rd. Tel. 02-223703; Tel Aviv & Central: Daphna Nir-Eli, Herzliya, Tel. 052-52174; Donowitz, 82 Bogrovich, Tel. 03-283639; Ohio, 52 Biliu Tel. 03-226939; Avi, Plumbing Services, 38 Bialik, Ramat Gan, Tel. 03-229452; Plastic Rishon, 11 Ayn Hakoran, Rishon le Zion, Tel. 03-945735; Potah, Tikvah, Barak and Chadika, 59 Orlov, Tel. 03-008398; Rappaport, Rehov Hefetz Haim, Tel. 03-917828, 03-911703; Lod: Seion Fawzi, 68 Herzl, Tel. 04-20282; Naa Ziona: Max Meir, 2 Bialik, Tel. 054-70048; Ashkelon: Petal and Boris Ltd., 32 Zehai, Tel. 051-23607; Beer Sheva: Madant, 110 Mordel Haghatag, Tel. 057-77984; Eilat: Arab, Refrigeration Services, Tel. 059-73011; Jordan Valley: Ark Mor, Moshe Gail, Tel. 02-941287; Beit Shean and Region:

Shilo, Menahem, Tel. 067-50890; Atula: Plastic Atula, Rehov Alonim, Tel. 085-22007; Nahariel: Tzaroniat Nahariel, Moshav Nahel, Tel. 085-86090; Hadera: Rina Ples, 65 Hagborm, Tel. 063-22247; Netanya and Sharon: "Sadah VoMashek", David Magassa, Tel. 063-95307; Halia: Erel, 78 Herzl, Tel. 04-863884; Bayit Vagan, 4 Abba Khouli, Abuza, Tel. 04-242344; A. Baumel, 43 Hemaglim, Tel. 04-524408; Ashdod: Rafi Dar, Tel. 052-21394; Ramat Hagolan: Yamin Manahem, Moshav Nov, Tel. 057-83740; Western Galilee: Pachtar, Reuven, Moshav Ben Ami, Mobile Post Ashdod, Tel. 04-921880; Upper Galilee: Benny Ye'ari, Sh'er Yishuv, Tel. 067-41354; Rehovot: Ami Rubinstein, 132 Herzl, Tel. 064-51182; Bethlehem: Anton Stein, P.O.B. 90, Tel. 02-743647



Cover photo by Lester J. Millman

Contents

David Twersky asserts that much criticism of the kibbutz stems from the critics' guilt feelings. 5

Jeffrey Heller describes the effort to make kibbutz factories attractive working places. 6

What you can see and do at the Kibbutz Industries Fair. Yitzhak Oked reports. 7

Ya'acov Friedler tells the reasons that led Kibbutz Dalia to switch from farming to industry. 8

Macabee Dean explains how important it is for the exporter to know the wants of the overseas consumer. 9

Yitzhak Oked learns what robots will and won't change in kibbutz industries. 10

Macabee Dean describes the importance of Research and Development for kibbutz industry. 12

The fair grounds didn't just happen, Yitzhak Oked tells us. 14



GIVE
SOLDIERS
LIFTS

Kibbutz as mirror and metaphor

For the city dweller, it is uncomfortable having this constant reminder of an attainable 'other way,' writes DAVID TWERSKY. The kibbutz is an inherently subversive metaphor for the possibilities in the larger arena of Israeli national life, that is why even its limited success draws the fire of other life styles and ideologies.

IN RECENT YEARS, the image of the kibbutz in Israeli society has undergone a kaleidoscopic change. This change, the new ways in which Israelis perceive the kibbutz, itself corresponds to a seismicographic shift in the wider arena of Israeli culture. The perceivers, and not only the object of their perception, are no longer the same.

Old values and sacred cows have been sacrificed on the altar of newer, semi-articulated assumptions about what constitutes the "good life." A major debate on the meaning of life, responsibility, Jewish destiny, the ethics of economic activity and social conscience is being waged *sub rosa*, under the thin surface of our national consciousness.

In this sense, the prevailing image of the kibbutz is a weather vane for cultural storm watchers: it is a metaphor for the 97 per cent of the nation which does not live on a kibbutz but which sees therein an image of itself, unyielding or exhausted, arrived and cynical, striving and idealistic, self-centered or outer-directed to the Jewish people and the State of Israel. All this depends on the angle of vision and needs of the beholder. Truth is in the heart of the seeker.

Elitists. Reactionaries. Millionaires. Idealists. Holy Communists. Rural Suburbia. Our Crowd. Political Machine. Social Capitalists. Landlord Gentry. Owners, Employers, Consumers, Workers, Stock Brokers.

There is a grain of truth, however microscopic, in each and every perception, however malicious. Part of the complexity of the kibbutz experience is that it is many, often contradictory, things. Together, the kibbutzim are an economic giant in Israeli terms. But their relative economic success does not spell the failure of the kibbutz' social idea; rather, it proves that idea compatible with agricultural and industrial growth, surely one worthy yardstick for any ideology of economic reform. It is not only "more just"; it also works.

But a society that is now rushing headlong away from the spiritual ethics of responsibility, growth, equality and participation — and towards the stock market and the consumer's "psychedelic bazaar," to borrow Daniel Bell's phrase — prefers to see, in the created wealth of the kibbutz, a release from the ideological restraints of the not so distant past.

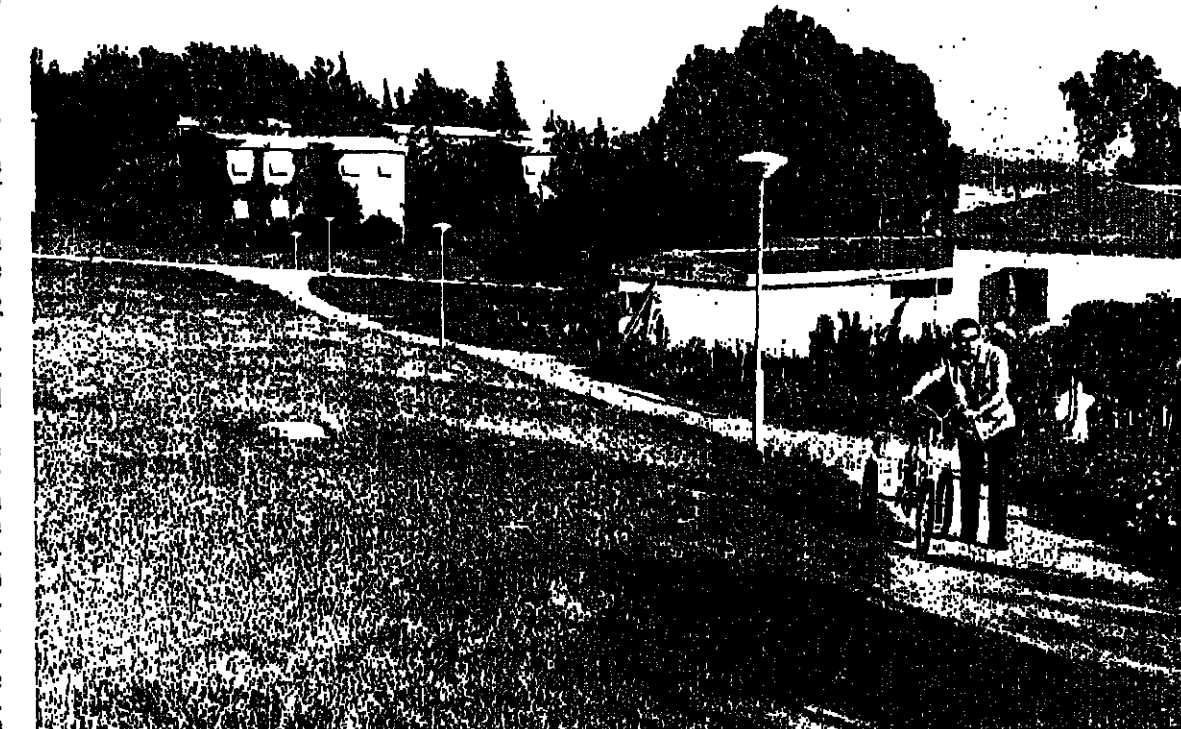
I myself do not see any necessary correlation between poverty and the kibbutz idea. True enough, in the youth movement we used to joke, "it's chutzpa to be *schnutzig*," but the feel for the hard day's work is still there. The entire debate, the occasional "radical" visitor dismissing the kibbutz as "bourgeois," is the product of a huge misunderstanding. The socialism of kibbutz life aspires to a generally higher standard for everyone, and not to a universal leveling. Like a famous American socialist, when challenged as to his living standard, we can say, "boys, nothing's too good for the proletariat!"

The kibbutz, as an entire movement, is an economic powerhouse, even if the average kibbutz family now lives below the average urban (and suburban) family.

The Kibbutz Movement is a political heavyweight — though undergoing a steady trend of declining influence due to its solid place in the firmament of the opposition. Fundamentally, the major problem is not these trick-mirror images which change depending on one's vantage point.

THE KIBBUTZIM are wrestling with the problem of "hired workers." There is a steady decline in their number over the past few years, the product of a conscious attempt. But where else would one even encounter this peculiar vocabulary?

THE KIBBUTZIM are wrestling with the problem of "hired workers."



Lawn at Kibbutz Ein Hashofet.

(Israel Tulby)

There is a steady decline in their number over the past few years, the product of a conscious attempt. But where else would one even encounter this peculiar vocabulary?

THE TERM itself is a redundancy. Everywhere else it is presumed that workers are hired, unless otherwise specified. In kibbutz terms, the individual-within-society rather than opposed-to-it. It is a model of local, democratic self-rule, or responsibility.

It is most uncomfortable having this constant reminder of an attainable "other way," available without coercion and bloodshed, within Israeli society. It is an inherently subversive metaphor for the possibilities in the larger arena of Israeli national life. The kibbutz is a powerful case for social change. Even its limited success is a lightning rod which draws the fire of other life styles and ideologies.

That fire is the price of not being ignored. Universal admiration — the Israel where everyone was either on his way to kibbutz or guiltily explaining why not, is gone forever. That Israel was a myth even in the fifties; but it was true for the poets and authors of the Palmach generation who fashioned the image.

Kibbutzniks constitute only 3 per cent of Israel's population. These 3 per cent represent a power in economic, political and social terms, not to mention in the IDF that is inconsistent with their minority status.

This is the result of both the unique history of Zionism and of the special character of kibbutz social organization. "Only" 3 per cent is misleading: three of every 100 Jewish Israelis is living in a democratic, egalitarian, Jewish community.

Can you imagine the American Democratic Party asking a rural

commune in Vermont to lend out their garage mechanic for a tour as chairman of the party's National Committee? In Israel it caused no stir when the Labour Party went to a kibbutz to get a secretary-general. Can you imagine America living in a nationally organized framework of 20,000 democratic communes controlling 6 per cent of American industry and over half of American agribusiness? The mind boggles.

This inherently subversive metaphor continues to revise and attempt to realize a far reaching agenda beyond its own economic growth or prosperity. It is not only "looking out for Number One." It is one of the few social forces in contemporary Israeli life which is still Zionist *vis-à-vis* the Diaspora. The Kibbutz Movement takes an active role in the worldwide affairs of the Jewish people. It has political, social, and economic agendas which speak to the life of the Israeli nation and will continue to pursue them.

If kibbutzniks tend to vote heavily, almost exclusively, for one of the major party-blocs, that is not a sign that they are either "robots" or, to use Harold Rosenberg's phrase, "a herd of independent minds." It is rather a sign of the inter-connectedness between the everyday life they live and the values they seek to impart to the national arena. When the serious divisions in Israel fell within the Labour movement, the differences were felt in kibbutzim to an excessive degree. It remains a paradox to me that the allegedly highly individualistic general culture instills robotic/conformist features in its individuals while the allegedly collectivist kibbutz produces sharply identifiable individuals.

Kibbutz society is highly influenced by the general norms — *halfway* it should only work the other way around as well.

Can you imagine the American Democratic Party asking a rural

To be sure, this problematic relationship, whose depths are difficult to plumb in so short an essay, is complicated by the various images, running the gamut from angelic to demonic, which stand in the way. A cultural filter distorting perception. We must break through these distorting images.

This may be the major challenge facing the kibbutz: to find the symbolic language capable of addressing the large number of Israelis, and, in another direction altogether, of Diaspora Jews, who speak different languages. It is this struggle to communicate with the poor and unorganized, as well as the affluent suburbs, that can smash the trick-mirrors which distort the national vision.

In the film version of Mordechai Richier's *The Apprenticeship of Dudi Kravitz*, Dudi listens to an older, world-wise and cynical friend, expound on the meaning of life: pursuit of money, looking out for yourself alone. "If you want to be a saint, Dudi, go pick oranges on kibbutz."

Perhaps that saintliness is gone, the halo above the heads of the barefoot pioneers and their air force progeny — the halo is gone like the legendary swamps they drained.

We are all more mature now, kibbutzniks as well as other Israelis. We must get along on an earthly plane — and who will deny the inroads of the spiritual malaise of modern life, even into the kibbutz? But a reorganization of political, property and social relationships, while vital and necessary, does not address every corner of the human heart.

While unsalutary, neither are kibbutz members living normal lives. Many people, here and abroad, remain interested in its progress. It is a difficult life, for all of the obvious rewards, made no easier by the constant pull of the surrounding society.

The unfortunate spate of attacks on kibbutz is the articulated mean of everything normal and banal, or social meanness. In the end, it is the attack of the ordinary on this most special movement of Zionism, on the moral and spiritual authority of a new, (now already "old fashioned") leadership for the Jewish people.

I am not sure at all that the kibbutz idea, in its widest possible application to the rest of Israeli society, will prevail in urban translation. Whether, together with fair-minded people in Israel and in the Diaspora, the kibbutz movement will help re-make a Jewish future, or whether the kibbutz will remain increasingly isolated from the conventional wisdoms — a case of what might have been, I do not know.

But I do know what the tradition kibbutz embodies. It is woven of the twin threads of Jewish values and European egalitarianism, achieved nowhere else. This tradition awaits the torch of a new generation. Then perhaps, fire will leap to the sky, and touch the heart.

David Twersky, a member of Kibbutz Gezer, is Editor of *Shalom*, the cultural forum of the Kibbutz Movement.

"CAJOLE THEM any which way, the kibbutzniks do not want to work in manufacturing," says Uri Osri of the Kibbutz Industrial Association's socio-technical team, dedicated to improving the quality of life for factory workers in conjunction with striving for the economic success of the plant itself.

"Generally a kibbutznik wants to feel he's part of something," Osri explains. In agriculture, with its rotation of duties and opportunities to work in different branches, "anyone who wants to can take an active part in everything."

The agricultural workers toil in teams toward a common goal — the harvest, which is preceded by planting and other farming activity that goes into a growing a successful crop.

Compare all that to the factory, where the kibbutznik works on a machine designed "so that even a cretin can operate it," Osri says. The result: kibbutzim must seek out volunteers or hire outside labourers to work in their industrial plants. And, Osri adds, "When they bring in the hired workers, the kibbutzniks leave the factory."

Osri, a member of Kibbutz Rosh Hanikra, now studying at Tel Aviv University toward a masters degree in Organizational Behaviour, believes his socio-technical team can make kibbutz factories an attractive working place for kibbutzniks.

The Socio-Technical System (STS) originated in England in 1950. It is a method of integrating workers' ideas for job improvement with technical requirements set by engineers. "We have to create systems in which everyone has a say," Osri explains.

STS is the combination of two concepts: improving the quality of working life and increasing productivity. In the past, both were handled separately. But, says Osri, they are intrinsically linked.

Improving the factory-floor environment, for example, with better lighting and ventilation will not necessarily drastically increase a worker's output, he says.

Enriching the job

Improving the quality of life for factory workers and striving for the economic goals of the plant are the twin goals of the Kibbutz Industrial Association's socio-technical team. URI OSRI describes the problems and some solutions to Reporter JEFFREY HELLER.



And, as in one kibbutz, working around the clock to double production so that the plant could capture a new market that had just opened up, would have wreaked havoc with the quality of working life, Osri explains. "The plant would have 'swallowed' the people," he says.

The objectives of the STS programme in effect at a General Motors plant near Dayton, Ohio, include:

— "To provide a safe, healthy working environment in which employees can satisfy their personal, physical and social needs.

— To develop a working climate that provides communication with employees, concerning what they are doing, why they are doing it, how well they are doing it.

— To continually seek to remain competitive in our market."

The key to an STS system is the reorganization of the work force

into teams as part of a job enrichment programme. For example, as reported recently in *Business Week*, the Shalee Corporation of San Francisco adopted the "self-managed" work team concept when it opened a plant to produce nutritional products, vitamins and other pills at Norman, Oklahoma, in 1979.

With a high degree of autonomy, the teams set their own production schedules based on management's volume goals. They decide what hours to work, select new team members from a pool approved by the personnel department and even initiate discharges if necessary, the magazine said.

A manager at the plant told *Business Week* that production increased considerably, and a worker at the factory summed up the STS programme by saying: "You aren't just told what to do. You have a

sense of owning the job and it makes you want to do a better job." One of the incentives in the STS programmes abroad, is, of course, better wages as productivity increases.

Kibbutz industries do not pay their kibbutznik workers, so, says Osri, the overriding aspect of the local programme is to ensure that rising productivity goes hand-in-hand with increased job satisfaction. "Our aim is to keep kibbutzniks working in kibbutz industries for five to 10 years, so that they will become more professional in their jobs," he says.

Sitting in his basement office in Tel Aviv, Osri explains how his socio-technical team operates.

Formed seven years ago by the Federation of Kibbutz Movements, the team consists of behavioural scientists and engineers from kibbutzim and the Productivity Institute. Its members went on study missions abroad to examine STS programmes in operation.

In a report Osri wrote and presented to the Federation of Kibbutz Industries last September, he spelled out the problems the kib-

butz factories face:

- Low worker involvement.
- Apathy and lack of responsibility among some of the workers.
- Motivation lower than what is expected from a kibbutz member working in 'his' plant.
- At times there is a feeling that a barrier exists between kibbutz members working on the factory floor and those members in managerial positions.
- The desire to persevere in one's work at the plant and to advance professionally diminishes, and professional workers frequently quit.

• The image of the plant among the kibbutz workers at large is becoming increasingly negative and the enlisting of new kibbutz workers into the factory is becoming difficult — especially with regard to young people.

The STS team will only go into operation if it is requested to lend a helping hand to a kibbutz industrial plant, Osri says.

A behavioural scientist and an engineer go to the factory, meet with its managerial staff and, more often than not, interview all its employees. The team issues its diagnosis to the STS team, which then recommends action to be taken to remedy the factory's ills, Osri says.

A steering committee is then set up, in which STS team advisers work with factory administrators to hammer out the final solutions for the plant's problems.

Alternatively, the team might hold workshops in the factory to try to find the best way to get the plant back on its feet again. After the remedial action is taken — sometimes over a period of months if technical changes are required on the factory floor — a reassessment is made as to their success.

About a dozen kibbutz industries received help from the STS team last year. But, Osri says, STS in Israel still has a long way to go. The Government and the Histadrut have shown little interest in actively pushing the project despite meetings with top foreign experts brought to Israel by the Kibbutz Federation, he says.

"The only ones who bought the concept were the kibbutzim," Osri says. "It's sad, because in all industrial nations, tens of millions of dollars are invested in this subject."



THE KIBBUTZ and Industry exhibition being held at the Israel Trade Fair Centre and Tel Aviv Convention Centre until September 15 will be the largest event of its kind.

Why has the kibbutz movement decided to stage such a big show, just now? We put this question to the manager of the exhibition and the spokesman of the Kibbutz Industries Association, Ohad Kariv.

No special reason, it just happened that way, a sort of evolutionary development, he says. "We have been holding a fair at Dizengoff Centre about twice a year. Because of lack of space only about 70 to 90 industries out of the 300 members of the association were able to participate.

"These were also industries connected with consumer goods and foods, enabling the city dwellers to come and buy the products of these industries at discount prices."

He added that because of lack of space it was decided to hold the exhibition at Kibbutz Shifayim, north of Herzliya. There they had planned to show all the 300 industries, including 150 that produce mainly industrial, rather than consumer, goods.

At this stage the Union of Kibbutz Movements intervened and demanded that the exhibition should not only show the kibbutz industries, but also life in the kibbutz and the problems it is facing today.

"That is how this huge exhibition was born, and transferred to the Tel Aviv I.T.F.C. exhibition grounds," Kariv said.

APART FROM the industrial exhibits, the exhibition will include an audio-visual show on life in the kibbutz during the 1980s; an exhibition of kibbutz artists and craftsmen and their works, including paintings, sculptures and photographs; and nightly entertainment by kibbutz dancing, singing and other groups.

These will include the Givatron, Sarah Sharon of TV fame in her sing-a-long song fests, and Naomi Shapira, together with the Beit Hadula group. For those who love the Latin American beat, the Bror Hayil group will bring songs and dances from that continent. Israeli folk dance groups of different kibbutzim and regional councils will also perform.

In the exhibition of industrial companies, 200 will be shown, with about 100 selling their produce at the show at reduced prices.

The industry will be divided into four groups: foodstuffs; electronics and metals; chemicals and plastics; and light industries.

The exhibition will be open daily except Friday, from 5-11 p.m. The 300-dunam area of the exhibition is expected to attract about 200,000

200 exhibits, and fun too

About half of the 200 industrial companies exhibiting at the fair are selling their wares there at reduced prices. In addition, there is entertainment, meetings of specialists, and an audio-visual show on kibbutz life. YITZHAK OKED reports.

visitors, who will pay IS90 per ticket, (less for soldiers and children), the tickets also covering entrance to the different entertainment shows at the fair. The exhibition will cost about IS10 million.

The organizers have also planned a number of activities that will be held during the mornings before the exhibition doors open to the general public. These will include:

The first meeting of scientists and professionals who are members of kibbutzim; a symposium with participants from abroad, on the ways to integrate agriculture and industry in rural villages, the kibbutz being the model; kibbutz exporter day; the blending of man and machine in the kibbutz industry; an organized visit of buyers both from Israel and abroad, with buyers from Lebanon

as special guests; the general annual meeting of the Kibbutz Industries Association; a study day in research in bio-technology, so that the kibbutz industries can return to industries based more on agricultural produce.

AMONG THE NOVELTIES at the exhibition is a special computer at the information booth that will ac-

cept information from buyers which will be transferred to all the participants who will be able to utilize this information to drum up sales.

There will also be a special booth that will give information about kibbutz life and answer questions from visitors who, after seeing all the goodies the kibbutz has to offer, might want to "convert" and join a kibbutz.

The population of all the kibbutzim in the country has reached about 120,000 today, in 260 kibbutzim. During the 1980/81 Hebrew calendar year the production of the kibbutzim in the agricultural sector was about IS9 billion; and in the industrial sector about IS6 billion, of which \$215,000 was in exports. The exhibition is being held in the framework of the festivities of 100 years of Jewish settlement in Eretz Israel.

NETAFIM — The Largest Exporter in Israel of Drip-Irrigation Systems

During the Kibbutz and Industry Exhibition, Netafim will be awarded the prestigious title **OUTSTANDING KIBBUTZ EXPORTER**

EVERY PRECIOUS DROP COUNTS.

Water.

The priceless resource. Not only in water-scarce Israel where Netafim drip-irrigation systems were perfected, but in every one of the 47 countries around the world where this remarkable method is in use. Wasted water means wasted money - in manpower, in energy, in crops.

Netafim's proven, efficient, economical technique directs water where it belongs. Right to the roots of the plants.

Netafim's irrigation systems have proven their superiority under any climatic conditions, for any crop, in any soil, with any water.

GET GROWING. WITH NETAFIM.

For information on the distributor nearest you, contact:

Kibbutz Hatzarim, D.N. Hanegev 2, 85905 Israel. Tel. 057-79611. Telex: 5267 NET IL

Kibbutz Migdal, D.N. Hatzor, 38845 Israel. Tel. 063-65553/4. Telex: 46231 NET MG IL

Kibbutz Yotvata, D.N. Hatzor, 13840, Israel. Tel. 067-40844. Telex: 6727 YINET IL

Their worldwide reputation is based not only on their effectiveness but on the wide knowhow and field service supplied by Netafim experts. Netafim. Simply the most dependable irrigation systems ever invented. For growers who don't want to see their profits going down the drain.

GITAM - Image Promotion Systems

Many thanks to the President, Mr. NAVON, and to Minister Gideon PATT for bestowing on us.

GAT FOOD CANNERIES of GIVAT HAYIM

the Special Commendation for Exports 1982 (U.S.\$ 21,500,000. — FOB)

Having been the biggest exporter of citrus products in 1981 and the biggest exporter among the kibbutz industries, we promise to continue our efforts and to maintain our achievements both in export volume and in product quality.

Our products can be found easily all over Europe under "JAFFA CHAMPION," "JAFFA CHOICE" and many buyers' private brands.

In Israel, look also for the "Prigat" label.

1942 — 1982: 40 years of growing achievements

GEVARAM

ENVELOPES & PAPER PRODUCTS

Manufacture and supply of postal envelopes of all types and sizes, produced from rolls. In all patterns: wallet, booklet, banker.

All with any desired window size, in any position on the envelope.

Self-adhesive envelopes Two-direction envelopes (receiver returns the same envelope to sender)

Air-letters on all grades of paper Top quality, side-seal pocket envelopes

Online printing on envelopes in various colours, during manufacture.

Offset printing on ready envelopes from rolls. In several colours, on both sides.

Quality and exactitude at unbeatable prices.

Kibbutz Gevar-Am.

Mobile Post Ashkelon 79 130.

Tel. 051-29178/9

From kibbutz industry to industrial kibbutz

Kibbutz Dalia, in the Ephraim Hills, which earns 95 per cent of its income from its two factories — which produce water meters and detergents — may be a model of the kibbutz of the future. YA'ACOV FRIEDLER reports.

THE KIBBUTZ, Israel's original contribution to sociological life styles was based on the idea of a collective community of farmers, working the land of their forefathers.

Due to limitations of land and water, and the remarkable advance of farming techniques, needing fewer hands to produce progressively more, the settlements were forced to seek other sources of income and employment. The factories not only provide an economic framework, but also help solve the employment problems of older members, past retirement age who are no longer able to do field jobs, but are anxious to continue their contribution and not become a burden on the commune.

Today there is hardly a kibbutz in the country without some sort of factory.

Kibbutz Dalia in the Ephraim Hills, not far from Yokneam is perhaps a model of what the kibbutz of the future may be.

Dalia earns 95 per cent of its income from its industries, two large factories manufacturing water meters and related instruments and detergents.

Founded in 1939 as one of the famous "Stockade and Watch Tower" settlements, it is affiliated with the left wing Kibbutz Artzi movement of Mapam. Its settlers, from Rumania and Germany, had to contend immediately with a hostile environment, rocky land and a severe shortage of water.

As soon as they had established themselves it became clear that they would be unable to derive their living from farming alone, and in 1942 opened their first factory.

Their preoccupation with water made it natural for them to think along water lines and they decided to start a factory for water meters.

Today Arad Ltd., a joint venture with neighbouring Mapam kibbutz Ramot Menashe, is Israel's principal producer of water meters. Arad also manufactures sophisticated automated irrigation systems and industrial flow-control instrumentation.

Dalia has 550 members and 350 children. Arad employs 150 people. 35 of them qualified engineers or technicians.

The number of hired workers, 58 only two years ago, has now been reduced to a minimum of only 10, in line with the movement's philosophy of not employing outside help. The hired workers include six professionals, one of them the factory's chief engineer.

MORDECHAI YAGOL, who at nearly 70 has the looks and energy of a man of 55, is the factory's managing director. He is serving his fourth two-year term in this position, during the last 20 years. Under kibbutz rules the job must be rotated to prevent a permanent merger of man and executive job.

He explained to *The Jerusalem Post* that the basic know-how of Arad is in the liquid measurement field, hot and cold water, and liquids containing chemicals. From this it has branched into measurement instrumentation for automatic irrigation of farms and into computerized systems for the instant



A member of Kibbutz Dalia at work in the water meter factory.

(Rubinger)

reading of water meters in large residential buildings.

The readings, of up to 2,000 cubic meters, are recorded on a cassette which the inspector takes to the town hall where it is plugged into the computer which prints the bills.

Arad gets the brass casings for its water meters from a Petah Tikva foundry and also has a partnership with a Haifa metal works plant for further processing. Everything else is done in the factory, which has its own plastics industry, turning out the 3,200 different plastic parts that go into Arad instruments. Each part has its own mould.

In 1981, Arad sold \$6 million worth of its products, \$2.7 million of them as exports to 28 countries, mainly the U.S. where thousands of its water meters are sold.

The next-door Zohar factory, Israel's major manufacturer of detergents, had about double that income, and employs only half the workers due to its highly automated plant.

On its farm, Dalia has eliminated many branches and today concentrates on only three, field crops, deciduous fruit orchards and sheep.

Like so many factories in Israel, Arad too is facing an export crisis this year, Yagol said, mainly due to the drastic reduction of housing construction during the present recession. This has sharply reduced the demand for water meters. To make up for it, Arad is trying to

move quickly into the more sophisticated electronic metering and control fields.

YAGOL HOLDS that kibbutz industry has another important role to play, in addition to the necessities that created them in the first place. To provide higher incomes making possible a higher standard of living and better services for the kibbutzniks.

Even in so ideological a movement as the Kibbutz Artzi, he concedes, "we must provide a high standard in order to combat the temptations from outside." But what interest do the kibbutzniks have in industry, which basically goes against their farming grain?

"For some of us, those who have passed 65, it provides useful employment, with the feeling that we still earn our own way."

For the younger members "it is an opportunity for self-fulfilment for individual talents, providing manual, managerial or technical jobs, according to choice and ability."

In the Arad factory, 80 per cent of the work is manual, much of it the assembly of the hundreds of parts that go into a simple water meter. This still accounts for 70 per cent of the factory's total output.

The airconditioned assembly hall is manned almost exclusively by the "white hair brigade." Founding members, men and women, who do

not want to be put out to graze. Each puts in as many hours as he or she feels capable of, with a minimum of four hours.

To accommodate the oldsters, who can't sleep a whole night through, they are allowed to start work at any time of the early morning they choose. "These flexible hours cause some inconvenience, but we feel we owe it to our seniors," Yagol explained.

The younger men prefer the more sophisticated jobs, where electronics and computers are their tools, a convenient symbiosis that farming with all its mechanisation can not fully provide.

The system works well, Yagol said, and individual output is high, thanks to motivation.

ARAD WAS also one of the first plants to introduce robots to the factory. Home made, and still fairly primitive, especially when compared to the high technology machinery in the plant, the two robots transport water meter casings, from one position to another, replacing monotonous manual work. They are in the process of being scaled up technologically, and are only a first generation, with successors to follow.

But the real motivation at Arad is the thought of all the welfare and well-being that awaits the kibbutzniks once they have completed their working day in the factory.

"The level of our welfare and services is very high," Yagol notes wistfully.

"They may be even a little exaggerated." Each flat is equipped with a stereo set, colour TV, internal phones (which will be linked to the outside network when lines become available) carpets, at least two original paintings, handsome furniture, and a kitchenette for coffee, cakes and cold drinks. Yagol, as a veteran, lives in an older house with only a shower, but the new apartments have bathtubs as well.

In addition, the kibbutz puts great emphasis on education, from childhood to old age, culture, sports, entertainment and such additional amenities as low cost car hire from its own fleet of vehicles.

He notes that "we get to see more theatrical performances here than the average city dweller, and for those who are theatre goers, there's always a performance in a neighbouring settlement. We also have our own film shows, well cared for gardens and small parks, our own little hospital, a series of clubs for all ages and tastes, in fact just about everything we can possibly need."

Only the clothes and food are ordinary, Yagol said, leaving little doubt that if anything he feels Dalia has become rather too affluent a society, suffering as a result from the ills with which affluence infects youth.

The kibbutz children are so pampered, with one adult working to care for every 2.5 children, that they might well be expected to grow up as a generation of pampered darlings were it not for the Army. There in the best tradition of the kibbutzim, the young men and women of Dalia do their share in the toughest units.

AS A matter of fact "only 40 to 42 per cent of the members are engaged in productive work," Yagol noted, the rest are in services, which include maintenance of the flats.

This proportion is about the same in all kibbutzim, with perhaps the exception of the youngest that are still struggling to establish themselves.

Yagol believes that in the less industrialized kibbutzim, where farming is still the major branch and work therefore harder, social problems are likely to be fewer.

His own daughter, he admits rather shamefacedly, heads the Dalia young parents' movement for having children live in the family flat and not in the children's home. This is strictly heretical to the movement's ideology.

So, the man who was recalled a few months ago to head Arad once more "because the younger men are still not quite ripe for this complex job," worries in his manager's chair about getting enough markets to keep Arad's machinery turning and profits coming in, while in his home he is concerned where all the affluence Arad has helped produce is leading his kibbutz.

Making allowance for the "things aren't like they used to be" syndrome, this still leaves a lot of problems that other kibbutzim, less advanced than Dalia on the industrialization trail, will have to face.

The mythical consumer

The exporter must see inside the mind of the overseas consumer. What does this mythical consumer want? What are the foreign trends, fashions and fads? Pleasing the customer is the name of the game, URI ADIV tells MACABEE DEAN.



Loading a container at Mishmar Ha'emek's plastic factory.

There is one thing Uri Adiv, export manager of the Kibbutz Industries Association, is sure of. Kibbutz members can grasp and solve problems, and adopt new concepts, with startling speed; they can implement them even faster. That's why he isn't worried about the two big economic questions facing kibbutz industries.

Why did exports by kibbutz industries fall by 4.2 per cent in 1981, (from \$212m. in 1980 to \$203m. in 1981), when total Israeli industrial exports (excluding diamonds) rose by 11.2 per cent? And why exports by kibbutz industries are continuing to fall during the first part of 1982.

Adiv believes the reason is that, in this case, kibbutz leaders have failed to grasp a concept that their "capitalistic" city industrialist counterparts have already understood. And that is that high production rates, excellent products, and competitive prices are not the entire "bottom line."

"What is just as important," Adiv says, "is to adopt modern marketing practices and to see inside the mind of the overseas consumer. Just what does this mythical consumer want? What are the foreign trends, fashions and fads? The customer may be fickle, but he is still the customer. Pleasing the customer is the name of the game."

Although this re-orientation of thinking may take some time, things are far from desperate in the kibbutz industrial sector. True, exports did drop by 4.2 per cent in 1981, but sales on the local market increased by 11 per cent, and the local market consumes about two-thirds of all kibbutz products.

But Adiv does not think the kibbutz industries should build their future on the local market, "even if they do understand this market better than the foreign one, for it is given to sudden and dramatic changes in its demand for goods, dependence on policy decisions made by central authorities, and problems of financing, to mention only a few things."

Past export successes must not only be regained, but must be surpassed. And industry means a lot to the total income of the kibbutz movement. Adiv estimates that "half our income comes from industry; the other half from agriculture which once was almost our sole source of income. Sure, we can live from our income from farming, but it will mean lowering

our standards of living greatly. We need industry to supplement our income. And industry has become part of our way of thinking and living."

NEVERTHELESS, although the younger generation tends to look much more favourable on industry than on agriculture, Adiv thinks there will be a switch-back in future years. What entices youngsters to industry is the newness, the innovations and the advances; and Adiv believes that there will soon be an innovative boom in agriculture, now that things like genetic engineering show promise.

Adiv hopes that the re-orientation in kibbutz thinking about marketing and consumer tastes will take place this year, but even so it will take time to put it into practice.

For the immediate present, the rest of 1982, he does not see a reversal in the drop of exports. There are plenty of objective reasons for this. One is that the kibbutzim export most of their goods to Europe, where the "basket of European currencies," compared to the American dollar, has been lagging behind the cost-of-living index in Israel.

Moreover, government incentives to cover losses due to the lagging of foreign currency income behind the index do not seem to be forthcoming, and finally, it is easier to change one's ways of thinking than to come up with a line of products which will please the customers. This requires not only mental retooling; it also may require entire production line retooling.

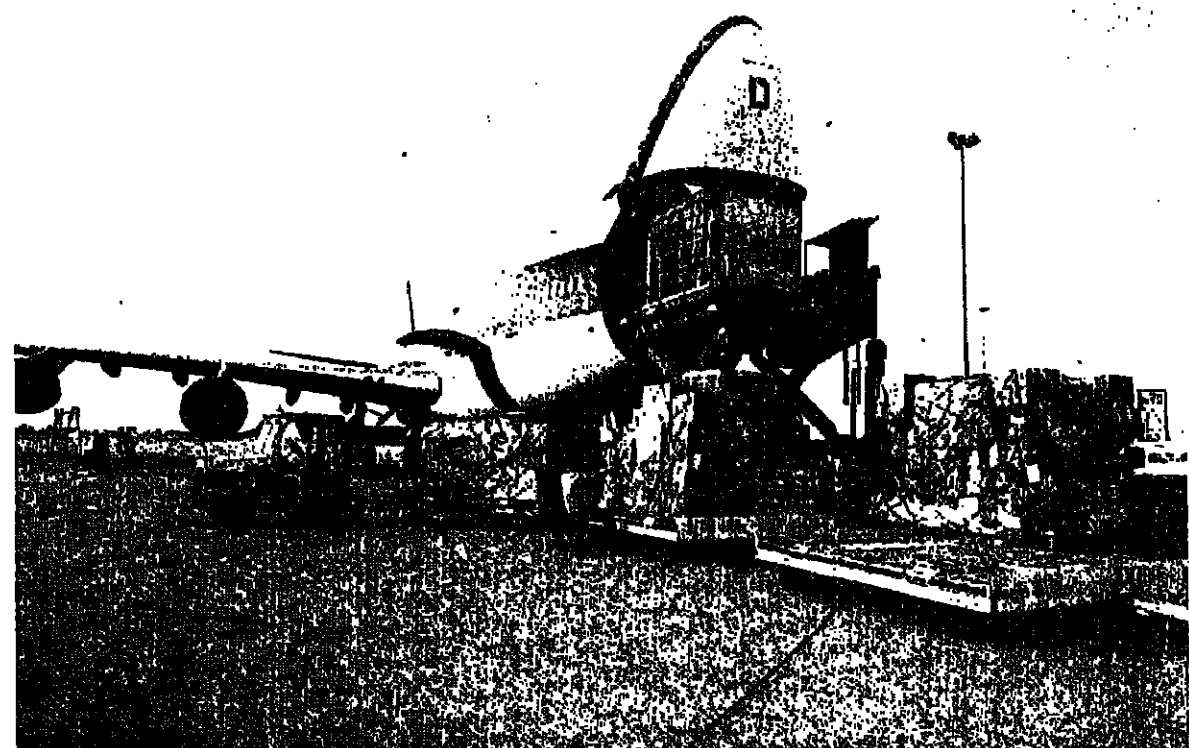
But he does believe that the situation will change sometime in 1983. Until then, the kibbutz industries must continue to export, even if only to make ends meet.

"Keeping existing markets, even if not too profitable, is a vital part of future planning. So is looking for new markets at the same time."

How does Adiv see the export picture for the rest of the current year? He says that exports of processed foods will continue at last year's pace and perhaps even rise as warehouses abroad replenish stock; then sales of metal goods will fall, mainly due to the shortage of funds abroad, especially in Africa, and due to the recession in Europe. Moreover, there will be less goods shipped to the U.S., since the Japanese are swiftly and fiercely moving into the field of farm machinery. And sales in Europe were never very high.

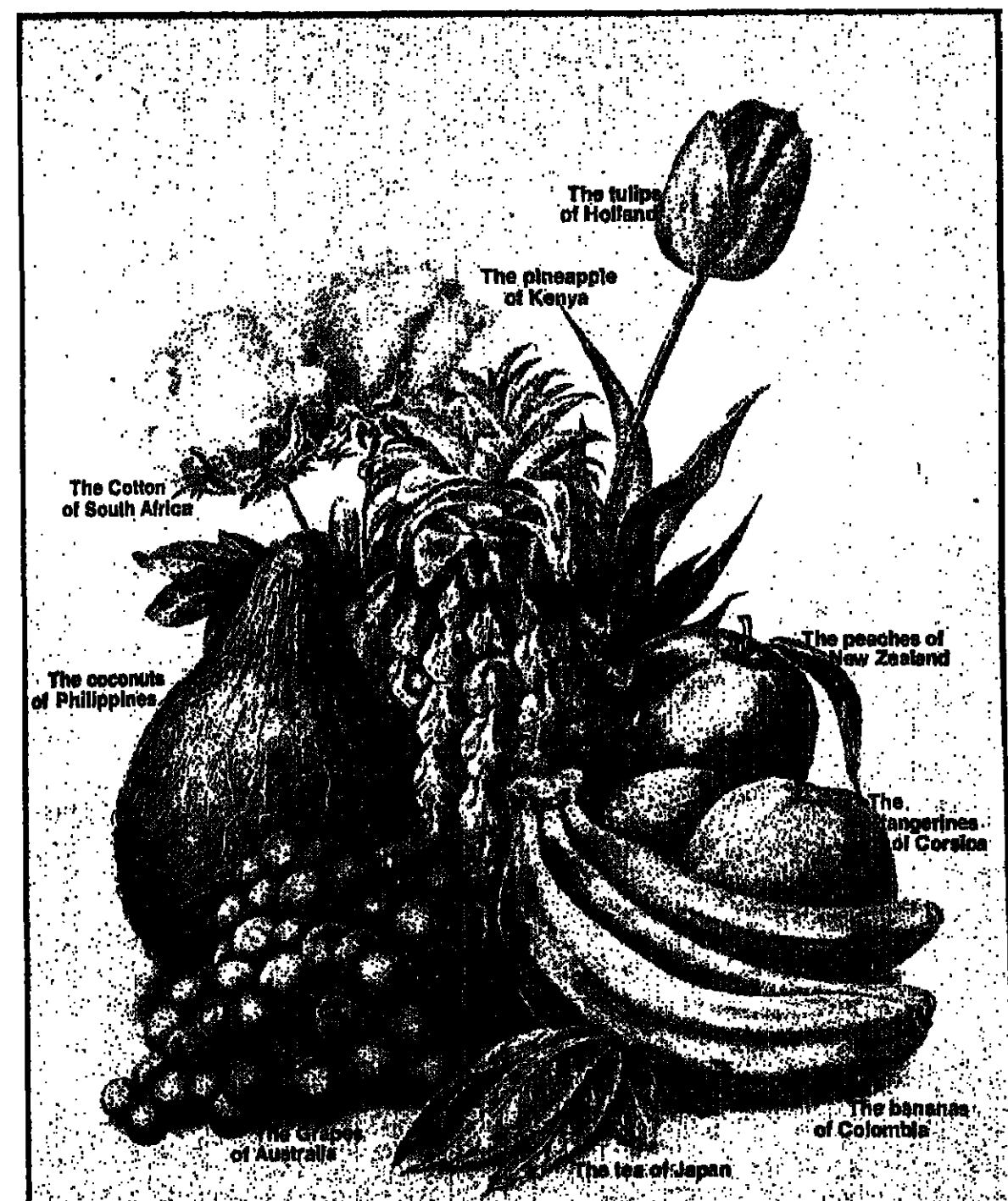
Sales for wood and furniture seem bleak, even if the American market picks up. Moreover, one of the staples of the kibbutz exporters, fornicia, is going out of fashion.

Those plants which make plastic pipes will probably increase their sales, but those who make plastic sheeting will likely see a fall in their market.



Containers being loaded into an El Al cargo jet.

(Photo Synov)



The Sprinklers of Naan.
Naan sprinklers — a renaissance in irrigation. More than 50 specialized sprinklers, plus the amazing new Naan-Tif integrated dripper system, aiding agricultural development and increasing crop yields on five continents.

Naan — largest sprinkler manufacturer outside the United States — working for you.

NAAN MECHANICAL WORKS ISRAEL
Post Naan 23803, Telephone 064 56476, Telex 31000, Cable Naan, Naan, Israel.
R.O. P.O. Box 22, Tel Aviv, Telephone 03 6222428-9
Cable Naan, Tel Aviv, Telex 30750 IL, PELLE

The robots are coming

The robot introduced at the Kibbutz Nitzanim plant not only welds much faster than the welder in the kibbutz, but it can hold the unwelded parts together until it welds them without fear of burning its hands. DOV DROMI talks to YITZHAK OKED.

Will the kibbutzniks become robots?

Will the implementation of this form of 20th century technology rob them of their status as individuals?

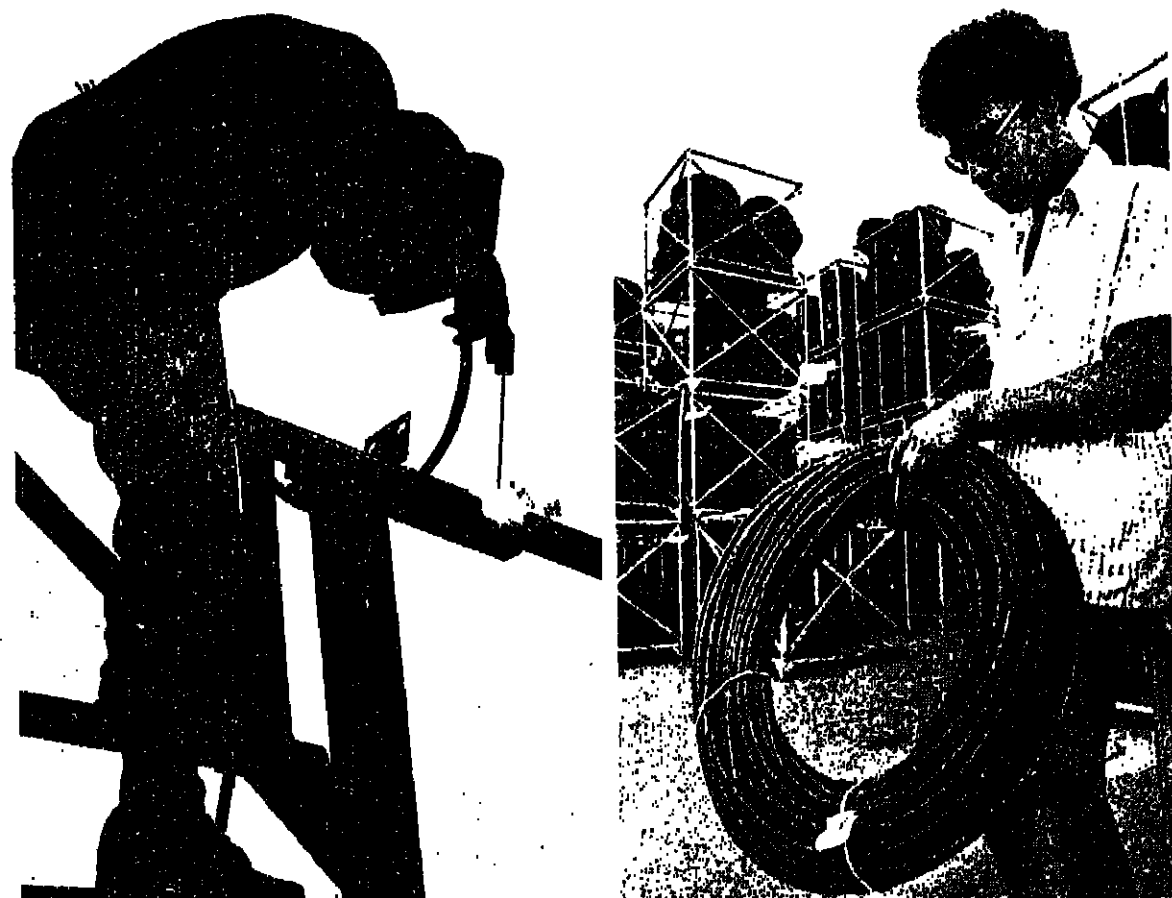
These questions are not unique to the kibbutz, in fact most of mankind in the modern world is asking it... but for some of Israel's kibbutzim it's a question of here and now. Kibbutz industries are entering the field of robotics. One kibbutznik lamented that this would herald the end of the carefree, maverick type of kibbutznik, and that robotization in the kibbutz would eventually turn its members into robots themselves.

Another kibbutznik was very happy. Rubbing his hands, he said that he could hardly wait for the moment when his industrial plastics plant, other plants and the agricultural installations in the kibbutz including the dining room would all be operated by robots.

"This will make us richer, we will have less work to do and we will have more free time to do things we really want to do."

These two extreme views do not portray all of the views and discussions that are going on in kibbutzim, but what is certain is that the robots are arriving and they're here to stay.

Dov Dromi of Kibbutz Kinnereth, who is a member of the Association of Kibbutz Industries said that the robots will not change the character of kibbutz members. Kibbutz members are not tied to a cer-



tain job in the kibbutz, and if a member is not pleased with his job he can ask for, and be rotated to, a different job.

He also feels that the robots will

only be used for difficult or unpleasant tasks, those that the kibbutz members have never been too happy about doing.

Dromi, a compactly-built man

who speaks in a soft but persuasive voice, said that the Kibbutz started looking into robots for this very reason. They were faced with a chronic shortage of workers in industry, especially in stations that were "unattractive" to the dynamic kibbutz member, "especially in jobs that are monotonous."

He said that at present there are already three robots in the kibbutzim. One at Kibbutz Tzora, in the Jerusalem Corridor, one at Kibbutz Nitzanim and a third at Ein Harod Hamenuhad.

Dromi gave the robot at Kibbutz Nitzanim as an example. "The arc welding station at the plant there that made metal furniture was always the bottle neck. Some of the welders, members of the kibbutz, were always absent. Either on reserve duty, guard duty at the kibbutz, or some internal kibbutz duty like working in the kitchen. Since this is a professional job, that only welders can fill, we had a problem. The robot that was introduced there does not only weld much faster than the best welder in the kibbutz, but also manages to do it while holding the unwelded parts together until it welds them, without fear of burning its hands."

He revealed that the kibbutz movement started thinking seriously about robots about a year ago when four kibbutz members went to Japan to participate in the 11th congress of the International Robotic Industrial Institute. There they visited plants, and heard about the latest techniques in robotics.

Dromi told the *Post* that the kibbutz members were surprised to learn how much the problems of the small Japanese plants were similar to those of the small plants in the kibbutzim. He said that since the Japanese worker is usually in a plant

for life, he knows that by the introduction of a robot he will not be fired, but actually promoted or transferred to a job needing new technologies. Also the Japanese worker, like the kibbutz member, is highly motivated.

Dromi also pointed out that the beauty of robots is that their introduction does not call for heavy training programmes since in a relatively short time even a person who knows nothing about robots can operate them.

He believes that the robots that will become popular in Israel will be those dealing with handling of objects and those termed "flexible," that can pick up things and place them, with their mechanical hands.

Unlike Japan, the Americans have gone into the non-flexible robots, the ones more in the automation field. Dromi believes that the robots have been entering American industry more slowly because the American plant owners demand that for every robot introduced, several workers be fired.

The kibbutz committee on robotization gives interested kibbutzim information on robots, and a group of experts visit the kibbutz, to see if the local kibbutz industry really needs a robot, or perhaps some other automatic process which is much cheaper. He said that there have been several cases where it had been possible to save the kibbutz huge sums of money while improving productivity.

If the committee believes that the kibbutz can use a robot, then it advises them to order a special study on what type of robot is needed. This study is usually made by a private engineering consulting firm for a fee of about \$1,500 to \$2,000. Generally this consulting firm continues to work with the kibbutz when the robot arrives, to ensure that it is being utilized to its maximum.

The committee has also conducted studies on the social implications of robot introduction in the kibbutz.

The committee initiated a special training workshop for kibbutz members on how to use robots. This will be held at Midrashat Ruppim at Emek Hefer.

During the coming 12 months about \$2.5 million will be spent on all phases of robotization in the kibbutzim. Dromi believes that by the end of 1982 there will be 10 robots in kibbutz industries and between 20 and 30 by the end of 1983.

The committee has also designated Kibbutz Tzora as an importer of robots (Japanese made) computers for the robots and, eventually, to manufacture components for robots. Perhaps at a later date they may even manufacture Israeli made robots. Kibbutz Tzora also plans to service all the robots they import and sell here.

It is difficult to tell how the robots will effect the kibbutz. But if we see how sophisticated some of the kibbutz industries are, we can be sure that the robots of the future, made and planned in kibbutzim, will be something more sophisticated than the world has seen today.

BANK BY PHONE

BANK BY PHONE SERVICE IS AVAILABLE AT ONLY ONE OF ISRAEL'S 3 LEADING BANKS!

DIAL

03-637311

AND FIND OUT WHICH ONE.



Winner Jacobsohn Tamir Adv.
TUESDAY, SEPTEMBER 7, 1982

THE JERUSALEM POST — KIBBUTZ INDUSTRIES SUPPLEMENT

PAGE ELEVEN

CHRONIC PAIN? NEUROGAR T.E.N.S. WILL HELP.



Non-addictive, non-invasive T.E.N.S. treatment often enables victims of chronic pain to go about their business in comfort.

AGAR instruments bring a new dimension to the scientifically proved efficacy of T.E.N.S. treatment, with the incorporation of patented "PULSE WIDTH MODULATION." This technique gives deeper, more effective pain relief, while reducing nerve adaptation to the stimulus.

AGAR T.E.N.S. devices conform to FDA standards in the U.S. They are reliable, compact, portable (battery operated) and very light. NEUROGAR is distributed worldwide, with an 18 month warranty.



AGAR ELECTRONICS
* Transcutaneous Electrical Nerve Stimulation

VISIT US AT THE KIBBUTZ INDUSTRIES FAIR
BOOTH 45, HALL 26

ISRAEL
AGAR
Kibbutz Ginosar 14980
Tel: 067-92162
Telex: 6761 AGAR IL

USA
INTER MED INDUSTRIES
INC.
11 Broadway
New York, N.Y. 10004
Tel: (212) 344 6777

CANADA
WHITE CROSS SURGICAL
MEDICAL SUPPLIES
280 Richmond St. West
Toronto, Ont. M5V 1W8
Tel: (416) 593 4597
(Toll Free): 1-800-268 9403

AUSTRALIA
N.K. ELECTRONIC
SERVICES & TRADING CO.
24 Wrixon Ave.
East Brighton, Victoria 3187
Melbourne
Tel: 678 6906



Kibbutz Nir David's plastics factory is staffed by the elderly.



(Braun) An American immigrant assembling electronic components.

(Goldberg)

Cow dung and pearl onions

There's almost no limit to the tasks of R&D in kibbutzim. It can mean finding a cheap way to ship pearl onions to the U.S., or turning cow dung into methane gas — with fish feed as a by-product. JOE CRIDEN tells MACABEE DEAN all about it.

RESEARCH and Development means different things to different organizations.

"In the kibbutzim, it can mean finding a cheap way to ship pearl onions to the U.S. in bulk, where they are repackaged by various firms in cute little jars to grace cocktail tables; it can also mean taking smelly cow dung, processing it to make methane gas and a by-product which can be used as a feed supplement for fish and cows.

"Between these two extremes, there's almost no limit," says Joe Criden of Kfar Blum, who heads the Institute for Research, Development and Technology in the Kibbutz Industry Association.

Criden, who looks at least 46 of his 66 years, settled in Israel 42 years ago, and has "been enjoying life and bitching about it ever since."

His biggest complaint is that during his fervent Zionist boyhood in Buffalo, he was known far and wide as "Yosef." But when he came to Israel, everybody started to call him

Joe. And it is as Joe that he is known to hundreds of thousands of TV viewers and radio listeners who view his programmes on road safety and the proper care of cars.

There are 260 kibbutzim in Israel. Since 60 are still without industries, this means that some of the remaining 200 have more than one each; some have several. There are 25 guest houses included in these 355 kibbutz industries.

Of the 355, metal plants, mainly for production of agricultural equipment, account for 83; 75 are plastics industries (the kibbutzim produce half of all the plastics made in Israel); 30 are electric equipment and electronics plants; 22 are devoted to art objects such as ceramics; 18 produce wood and furniture, and another 18, textiles, including children's clothing, diapers, and leather; 17 deal with food processing. Some of these, like Gan Shmuel, are enormous, and a large percentage of the country's processed foods come from these 17 plants. Optics account for another

11, and the rest cover a variety of smaller fields, like printing, medical equipment, chemicals, musical instruments, such as pianos, electric organs, flutes and guitar strings.

Kibbutz industries employ 13,500 persons. Lumped together they are one of the largest industrial employers in the country; in 1981, they produced roughly \$1 billion of goods, of which exports accounted for \$215m. Industrial investments accounted for \$306m.

Although the kibbutzim represent only three per cent of the population, they produce six per cent of the country's industrial output, excluding diamonds.

Just how did a Zionist movement, dedicated to communal living on the soil, develop into an organization needing industrial R and D? If the R and D were needed to produce better crops, it would be understandable.

"The road from the fields to the factories was inevitable," says Criden. "Let's take a specific example, my kibbutz, Kfar

Blum. When set up we had 5,000 dunams, ample land to provide work and a livelihood for the 30 to 40 adult kibbutz members. But the population grew to 400 able-bodied workers, plus another 400 children.

"We had to look for alternative sources of employment. And if once it took 30 persons to harvest a cotton crop on 2,000 dunams, today six persons, using machinery, do the same job. We just didn't have enough farm land; we had to move into industry.

"But only a specific type of industry, it soon became apparent. Some of the younger generation wanted to be both engineers and kibbutznikim.

"We had to find work for them, on the kibbutz, if we wanted to keep them. So, we began looking around for interesting industries. Admittedly, our first factories were planned haphazardly, without taking the element of interest sufficiently into account, but gradually we began to move in the right direction.

"THERE IS a huge difference

between a factory in a kibbutz, and one in the city. In the city the factory is, or should be, in an industrial zone," explained Criden. "The kibbutz factory is in the members' back yard. Obviously they are not going to permit ecological disturbances, such as smells, dirt, noise, waste products and such to litter their lives. Moreover, we have to install many more safety devices. When three-year-old Mosheleh wants to visit his father at the factory during the day, his father doesn't want little Moshele to lose a couple of fingers."

And then there's the matter of spare parts. In the city, you just jump into your car and drive a few minutes to a store that handles items, or to a warehouse, and you come back. Time spent: 20-30 minutes.

But if you have a factory in the northern Galilee and the spare parts are in Tel Aviv? It means hopping a plane and flying south, spending time roaming around Tel Aviv, breathing the smog, spending a

night in a hotel, and then taking a plane home the next day. So a 50 cent spare part can cost you \$100 in travel expenses. This, of course, had led us to try to keep as many replacement parts on hand as possible.

But the biggest difference is the relationship between the factory and the workers. The kibbutz members are not only highly motivated and demand from themselves superior performance at the work bench, but they also have much more education than the average factory hand.

"In the cities, all too many high-school drop-outs go to work in the factories. In the kibbutzim, nearly

all the workers are high-school graduates; many have university educations. You just can't give them dull, uninteresting work. I've already mentioned this in a different context. They want to use their minds as well as their hands. And this doesn't apply just to 21-year-old kids just out of the army. I once visited a plant where an 80-year-old woman, hale and hearty, was helping to assemble an appliance. Her job was to twist two wires together. Asked if she liked her work, she snapped: "Are you crazy? How many years can a person like me with my background do such dull work without starting to climb a wall. I need a challenge; I need to

look forward to a bright future."

"Well, this little old lady put the whole problem in a nutshell," said Criden. "We need R and D; without R and D we have no right to exist. Any factory can make a cheap scooter, but only Rolls-Royce has the skilled workers to make a Rolls-Royce. We must concentrate our efforts on utilizing our brains to make goods of the highest quality, demanding the highest skills."

"These goods might cost more, but they are worth more, and they will sell better. And since we can never compete with conveyor belt factories, neither in the quantity of output nor in the dullness required, we need to find those products

which fill a niche in industrial life."

As a practical example of this, Criden said that Israeli drivers, being reckless by nature, smash a lot of plastic tail lights. These little pieces of plastic cost a fortune to replace.

"The solution was to make a metal die in Israel. But why make a metal die costing hundreds of thousands of dollars, to produce 200 to 300 tail lights a year? One of the bright young kibbutz lads found a way to make the die itself out of plastic. This plastic die was cheap and its disadvantage, that it lasted for only 200 impressions, was an advantage. We needed only 200 impressions."

Every year, he says, "we have between 30 and 50 young kibbutzniks working on 50 different projects. Some of the projects are as original as making a plastic die; or, using alternating current to plate metal (which some specialists thought was impossible); or devising a machine to braid hallo for Shabbat."

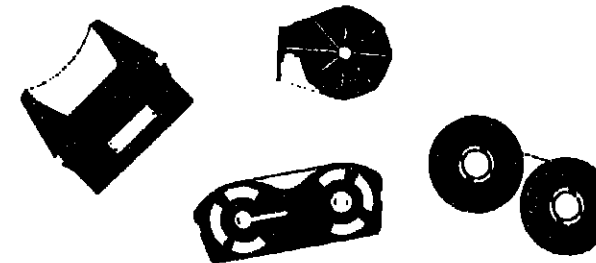
Criden himself, who reads half a dozen languages and closely follows foreign technical literature in this field, is often called in as a consultant. His advice varies: sometimes he says "this looks promising;" sometimes it's "this has been done before;" and sometimes, it is simply "this idea stinks."

AFIC Printing Ribbons, Cassettes

ANNOUNCEMENT

AN UNUSUAL OFFER:

Superb quality —
plus
competitive pricing



Based on some of the finest technical know-how from Western Europe, Kibbutz Afic has built and equipped one of the most advanced and efficient factories for producing a wide range of ribbons and cassettes for:

Electric typewriters Computer print heads
Electronic typewriters Telex machines
Desk calculators Bookkeeping machines
Word processors Etc.

For samples and pricing information, please inquire:

Largo-Afic International
12 Shoken St. Tel Aviv, 68 063 Israel

Telephones: 03-835811, 831351, 827472 Telex: 35301 Largo IL
02-247042, 242332, 04-674086



MANUFACTURING OF
Cathedral Sound City
Cathedral Bow Strings Londoner
St. David Summit

MUSIC STRINGS FOR:
CLASSIC/SPANISH GUITAR BANJO
ACOUSTIC GUITAR MANDOLIN
ELECTRIC GUITAR UKULELE
12 STRING GUITAR BASS GUITAR
VIOLIN
VIOLA
CELLO
DOUBLE BASS

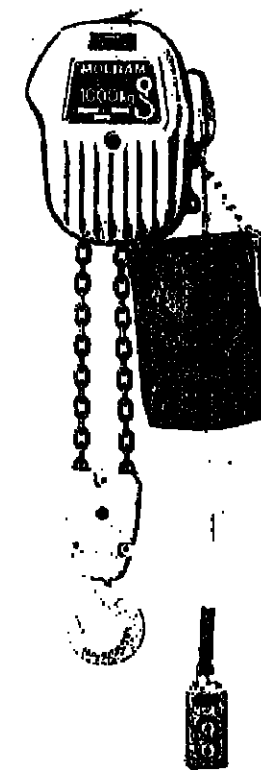
Arava Music Strings, Kibbutz Gofit, M.P. Eilat 88 825, Israel
Telephone: 059-72936, Telex: 7780 AMS IL

Authorized Distributor and Service

YALE Hoisting Equipment

- ★ Ratchet lever hoists
- ★ Hand hoists
- ★ Electric chain hoists
- ★ Air hoists — chain and wire rope
- ★ Trolleys — plain, geared, motorized
- ★ Electric, wire rope hoists
- ★ Cranes and end trucks
- ★ Jib cranes

S MOLRAM
HOISTS AND LIFTING APPLIANCES
Moladot — M.P. Gilboa 19130
Tel. 065-81151; 065-81733



NOGA

THE BOOT FROM GIVAT HASHLOSHA

HIKING BOOTS

An expert boot, specially suited for camping and milu'im. Quick-lacing plus zip. Available in 2 styles. The boot with double lining and insulation, also with fur.



FOOTBALL BOOTS

Sole manufacturers in Israel of leather football boots of international quality. Our clients in Israel include: Maccabi, Hapoel, Beter.

NOGA

manufacturer of work boots, boots for security personnel and paratroopers. Exporter of army boots.

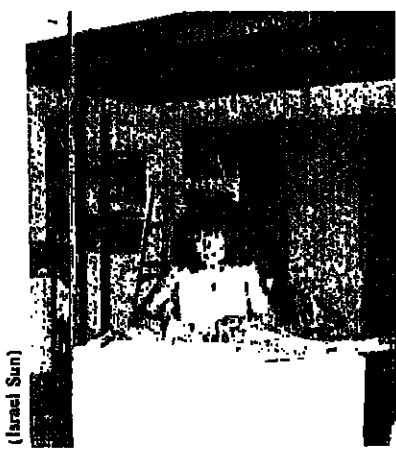
NOGA

Kibbutz Givat Hashlosa. 03-905462, 03-912232.

Discount slips for purchases at the factory shop are available at Stand no. 26.

The fair grounds

Last year 12 fairs were held at the Israel Trade Fair Centre. This year the target is 16, of which eight will be international fairs, connected with our export effort. YITZHAK OKED reports.



ONE OF THE THINGS that will probably be taken for granted at the Kibbutz and Industry exhibition will be the fair-grounds themselves. Of course you can't hold an exhibition without a fair-ground.

Ya'acov Bar-Gera, the energetic general manager of the Israel Trade Fair Centre and Tel Aviv Convention Centre, is proud of the great changes made.

"We didn't have enough power outlets, and because of that we had to curtail the number of exhibitions. We didn't have air conditioning and because of that the grounds had to be closed about six months in the year."

Bar-Gera was also pleased to call attention to another part of the "revolution" he has been overseeing. "During the 1979/80 fiscal year there were five fairs at the grounds. During 1981/82 the number jumped to 12. This year he hopes to reach 16, of which eight will be international fairs, connected with Israel's export effort."

He is confident that the kibbutz fair will be successful and this will turn into a regular affair every two years. He also noted that this year there will be two entirely new fairs on the grounds, a food fair and a sports and camping fair.

For May 1984 Bar-Gera has even greater plans: the first Air Salon in Israel, where airplanes and airplane equipment will be exhibited.

He is also proud of the fact that from a company that was partially subsidized, this year it is carrying

out a \$5 million expansion plan from its own earnings plus governmental loans that they will pay back from their revenues.

ASKED whether the kibbutz fair would bring in any profits, Bar-Gera was sceptical, but he was confident that it would not lose any money. He was also sure that future kibbutz fairs would be profitable. "This is like investing seed money for the future."

It turns out that success sometimes has a price, Bar-Gera says. He points to the recent exhibition of war booty captured in the Lebanon war. "We are good organizers and can get things done in a short time, and we believe that we could go into the Guinness book of records for our speed organizing that exhibition."

The decision to hold the exhibition was taken on Thursday noon and Saturday night it was opened. "Actually I had proposed to hold such an exhibition and had sent a letter to the Ministry of Defence, explaining that it would take several weeks to organize."

"I was surprised when a short time later I received a telephone call from Tel Aviv Mayor Shlomo Lahat (Tel Aviv Municipality is the main stockholder of the I.T.F.C. fair grounds) telling me that the IDF was interested in holding such a fair. I explained to the Mayor that I had already proposed this and that it would take several weeks to organize."

"A short time afterwards I received a telephone call from the Chief of Staff's office, telling me that three senior officers were on their way to my office and would be arriving in 10 minutes time."

"It was Thursday noon. They said that they wanted to open the fair Saturday night. I tried to explain that I needed at least two weeks to get things organized. The officers answered, 'Impossible, the tanks are already rolling towards the fair grounds.'"

"When I heard that I simply raised my hands and said 'O.K., I surrender.' The fair opened on Saturday night."

KIBBUTZ INDUSTRIES

Selected List — Advertising Section

AGAR ELECTRONICS

Pain Relief Device

The plant produces Transcutaneous Electronic Nerve Stimulation (T.E.N.S.) instruments (their Neuroger series) for the relief of pain, and as an aid in the physiotherapeutic treatment of wasted or injured muscles and nerves.

The instruments work by interrupting with electric pulses the pain signals from the affected site to the brain. They also stimulate the body's production of a chemical substance that inhibits the sensation of pain.

A patented device for modulating (varying) the pulse has put the Neuroger series in the forefront of instruments of this type, and ensures Agar an expanding, worldwide market.

Agar Electronics, Post Ginnosar 14880, Tel. 067-82152, 067-20208. Tel. Aviv office, 88 Rehov Arlosoroff, Tel. 249085.

AGREKAL

Lightweight Mineral Aggregates

Vermiculite and Perlite, expanded mineral aggregates, are manufactured by Agrekal, Moshav Habonim.

High grade ores imported from Greece and Africa yield aggregates ranging in density from 35 kg./sq.m. to 125 kg./sq.m., suitable for a wide variety of applications in industry, building and agriculture.

These applications include thermal plaster, lightweight concrete and loessfills for thermal insulation at sub-zero, atmospheric and high temperatures; lightweight hygroscopic loessfills for self packaging of dangerous chemicals; horticultural growing media for nurseries and gardens; and carriers for animal feedstuff additives.

Vermiculite and Perlite are safe, sterile, incombustible and easily handled.

Agrekal, Moshav Habonim, Mobile Post Carmel Coast 30845, Tel. 063-90513/15.

ALTEXT HAHOTRIM

"Woven Non-woven" Fabric

Altext Hahotrim produces fabrics using the woven non-woven system. Their products first appeared on the market in 1978. The bulk of the production is pure cotton fabrics. Their floor cloths are in great demand on the domestic market, thanks to their outstanding absorptive capacity, durability and pleasant touch. The same fabric is used in kitchen gloves, kitchen cloths and towels.

Fabrics of synthetic fibres are used in blankets, etc. Also exported to Europe, South America and South Africa.

Altext Hahotrim, Hof Hacarmel 30870, Israel, Tel. 04-573807, Telex 48400 BXHA IL At 8783 ALTEXT.

ARAVA MUSIC STRINGS

"Sound City," "London," "Cathedral" and "St. David" have moved to Israel. Arava Music Strings continues the production of high quality music strings, established by "British Music Strings" in 1912. At the factory at Gofit, British technology is combined with kibbutz craftsmanship. Top quality materials are worked in a corrosion limiting environment to produce:

"Sound City": for electric and acoustic instruments. "London": for guitars and bass guitars. "Cathedral": gut to stainless steel, guitars to double bass. "St. David": for acoustic and electric instruments. Arava Music Strings, Kibbutz Gofit, Mobile Post Eilat 88825, Israel, Tel. 059-72938, Telex 7780 A M S IL.

ARKAL

Plastic Products

Established in 1982, Arkal has four production lines — Containers for soft drinks, dairy, agricultural transport, pallets. Institutional, garden and domestic seating. Technical products: automatic and manual water filters for irrigation, industrial and domestic water purifiers.

Audio cassettes — welded, screwed, C-0, C-45, C-90, C-90, with and without library boxes.

Products are exported to Germany, the USA, Canada, Australia, New Zealand, and elsewhere.

Arkal, Mobile Emek Hayarden 15138, Tel. 067-81331/3, Tel. Aviv office: Moshav Tel Aviv, 6 Rehov Ha'arava, Tel. 03-585114, Telex 8885. In Haifa: Tel. 04-574283.

BE'ERI PRINTERS

Founded in 1951 at Kibbutz Be'eri in the Negev, Be'eri Printers are today an ultra-modern, diversified printing enterprise, employing 74 kibbutz members. They offer graphic, photographic and computer services, letterpress, offset and web offset printing, computerized printing of magnetic-ink cheques and documents, automated cheque book binding, envelope stuffing, etc. The firm's specialty, in which they are the largest printers in Israel, is the printing of magnetic-ink cheques and documents (CMC-7 and E-13-B processes). Be'eri Printers also produce booklets, books, business forms. Export enquiries are invited, particularly for magnetic-ink cheques and documents.

Be'eri Printers, D.N. Hanegev 85136, Telex 341283 IL, Tel. 067-91139.

DAFNA INDUSTRIES — HULATA SHOES

These two plants market through a jointly owned organization. Their products are slush moulded PVC boots of various types, including motorcycle and riding boots, slippers, leisure and combat shoes, with textile or synthetic uppers, and PVC or PU soles. They also supply cotton and synthetic bas bindings for the cloth and shoe industries.

About 80% of production goes for export, the main markets being north and west Europe, South Africa and New Zealand. Production capacity is approximately 3000 pairs of boots and 3000 pairs of textile shoes per day.

Dafna Industries and S.A.R., Kibbutz Dafna, Israel 12238, Tel. 087-42377, Telex 8816 DAFIN IL. Hulata Shoes, Kibbutz Hulata, Israel 12110, Tel. 087-38447, Telex 6730 HULTA IL.

EL-HAMMA INSTRUMENTS

From the day El-Hamma Instruments was founded in a bomb shelter at Kibbutz Mevo Hamma, the emphasis has been on developing quality instruments. Today's half-million dollar building has all the features necessary in a modern electronics plant. El-Hamma produces a complete range of pH and conductivity meters, including industrial controllers. Among the instruments developed are those in the "Mini-lab series," with applications in many fields — medical, environmental, research and education, as well as the rapidly expanding, technical side of agriculture. El-Hamma supplies 80% of the Israel market's requirements, and has a rapidly growing export trade.

El-Hamma Instruments, Kibbutz Mevo Hamma, Golan Heights 12480, Israel, Tel. 087-83894, Telex 341263 TOAM IL.

ESHET EILON —

Agro Industrial Systems

From small beginnings, Eshet Eilon, founded in 1938 on Kibbutz Eilon, is now a modern factory producing electronic weight actuated sizers and other packing house equipment for avocados, citrus, apples, tomatoes, peppers, etc. Eshet Eilon's equipment has now gained a worldwide reputation. Its packing machines can be found in use in Greece, Iran, Puerto Rico, Algeria, France, Ethiopia and many other countries.

Eshet Eilon has also developed a new type of Roto Tiller that has already earned itself a good reputation.

To modernize methods of transporting crops from the field to the packing house, Eshet Eilon has developed special tipping wagons, now giving satisfaction in a number of countries.

The success of this plant is achieved by careful planning, carried out by engineers with an agricultural background, familiar with the problems of farming.

Eshet Eilon, Kibbutz Eilon, Mobile Post Western Galilee 22 846, Tel. 04-987177, Telex 48862 ESHET IL.

GALAM LTD.

Glucose and Starch Products

Galam, owned by Kibbutz Maanit, is one of the leading enterprises of the Israeli starch industry. The plant produces a wide spectrum of products for the home and industry, mainly from corn. Galam's native starches, and a wide range of precooked instant starches are sold to the food industry and Galam's own consumer goods department.

Glucose syrups, produced by acid or enzyme treatment, are available in medium, low and high conversion. Galam is very proud of the caramel colours (glucose products), especially prepared for use in beer, malt, alcoholic beverages, cola and soft drinks, candies and baked goods.

A complete line of industrial starches has been developed to meet specific needs. One outstanding example is the various products prepared for the corrugated board industry. Galam makes starch adhesives for this purpose for regular use, as well as adhesives for waterproof board, capable of withstanding the extreme humidity of cold storage and sea transport.

Corn germs are sold to oil distillers, who extract the polysaturated corn oil. Corn gluten feed and meal are used as animal fodder.

During the past 40 years, Galam has expanded step by step to become a modern, automatic milling plant. Galam places strong emphasis on quality control and technical service. Its technical staff is trained to help customers solve problems in the use of starch and glucose products. A new research and development laboratory develops new products and meets new demands.

Galam has worked to become big enough to be ultra modern. It has acquired the experience to help solve customer's problems, yet is small enough to make products exactly adapted to special needs.

Galam Ltd., Post Maanatha 37856, Tel. 083-70242, Telex 46319.

GAT FOOD CANNERIES

Gat is the largest Israeli exporter of frozen foods, and the largest exporter of all kibbutz industries organizations (1981 exports \$21.8m. net). Some 85% of total production is exported to 25 countries. In 1971, Gat was nominated an Outstanding Exporter, and in 1981 the firm received a special commendation for exports.

Gat Food Canned is the first company with export cloudy citrus concentrates, and to produce and export deep-frozen citrus concentrates — also for retail sales.

For this purpose, the firm has developed and produces special peeling units, and it maintains laboratory facilities for quality control and product development.

Gat Food Canned, Givat Haim 38100, Israel, Tel. 083-85117, 85166, 85888; Telex 48375 GATOR IL.

LARGO-AFIC INTERNATIONAL LTD.

Afif Printing Ribbons and Cassettes

Kibbutz Afif has built and equipped an advanced, efficient factory for the production of a wide range of top quality ribbons and cassettes for computer printing heads, electric and electronic typewriters, word processors, telex machines, bookkeeping machines, desk calculators, etc.

To assure highest quality, the kibbutz has acquired some of the finest West European know-how relative to equipment and production.

Exclusive sales agents: ISRAEL — Largo-Afif Ltd., 12 Schocken St., Tel Aviv, Tel. 03-831381, 827472, 836811; 02-247042, 242332, 04-874088. EXPORT — Largo-Afif International Ltd., at the same address, Telex 38301 LARGO IL.

MAD-TAKIN Computerized Watering Supervision Systems

The ever increasing costs of energy and manpower in Israel have resulted in its becoming a world leader in irrigation technology. Mad-Takin, with more than 30 years' experience in irrigation accessories, has recently designed, developed and produced advanced computerized irrigation systems.

Gal 1, a computerized system for the supervision of irrigation and water distribution, is the culmination of a long and distinguished series of Gal irrigation controllers. Gal 1 is a three-tier system, this feature making it possible for it to be integrated gradually into a watering system. This facilitates the understanding of its operation, and permits more flexible financing of the acquisition.

Mad-Takin, Kibbutz Heftizba, Mobile Post Gilboa 19135, Israel, Tel. 066-81677, Telex 46381.

MICROVUE PRODUCTS

Micrographic Equipment

Microvue, manufacturers of micrographic equipment specialize in microfilm readers to international micrographic standards. They offer a wide range of front and rear projection models, including engineering, Microfiche, low profile, COM, wall projection and filmstrip readers. All models have dual lens ability, and roll film, aperture card, and standard fiche interchangeability.

The Israel distributors are Microfide Ltd., Tel Aviv, Tel. 03-336108.

Main overseas distributors: Australia, Ahoos Melbourne, Tel. 932254/5 Canada, Commonwealth Microfilm Library, Tel. (416) 487-8140, USA, Midwest Amesco Trading Corp. IL, Tel. (312) 228-7854/8; West Coast, Micro Image, CA, Tel. (918) 383-2121, UK, Alpha Trading Ltd., London, Tel. 01-4938622/4, Europe, Karmac B.V. Leyland, Holland, Tel. (03200) 44 2 44; Singapore, Astraco Pte. Ltd., Tel. 4480741.

Microvue Products, Kibbutz Bihukot, D.N. Hahiba 10910, Tel. 065-86947/8, Telex 48808 MIVUP.

MOLRAM

Holsts and Lifting Appliances

Molram at Kibbutz Moleidot is a leading Israeli manufacturer of holsts and lifting appliances. Products include electric chain holsts, chain blocks (also electrically powered), plain, geared and motorized trolleys, wire-rope holsts (British know-how), underhung and top-running crane and trucks, jib cranes, and a broad range of custom-made cranes.

Molram distributes Yale heavy duty lifting equipment — Pul-Lift, electrical and air powered holsts, and cranes of up to 35 tons capacity.

Thanks to its efficiency, Molram's wide-ranging distribution and service network has a large number of satisfied customers.

Molram, Moleidot, Mobile Post Gilboa 19 130, Israel, Tel. 065-81733, 065-81151, Telex 48400 BXHA EXT. 8828.

M.S.M.

Powder Metallurgy Sintering

M.S.M. is the first and only Israeli plant producing parts from ferrous and non-ferrous metal powders — iron, steel, stainless steel, bronze, brass, copper-nickel. M.S.M. uses this method to produce geometrically complicated parts for companies making office machines, automation, agricultural machines, household appliances, munitions, security locks, irrigation, food and petrochemical products, power tools, tokens (phone, etc.), noise attenuators, self-lubricating bushings and bearings, etc.

Sintering is the cheapest, and sometimes the only way to make parts of intricate shape, to close tolerances and with unusual alloys.

M.S.M. — Kibbutz Mefalsim, Mobile Post Hof Ashkelon 79 180, Israel, Tel. 081-87981, 081-87353, Telex 26398 TAPUD ILATT M.S.M.

NAAN MECHANICAL WORKS Watering Systems

Founded in 1948, Naan Mechanical Works is the largest metal fabricating enterprise in the Association of Kibbutz Industries. They produce sprinklers for agriculture and horticulture, and the Naan-Til integrated drip watering system.

Naan's R & D department works with the Ministry of Agriculture and the Agricultural Faculty of the Hebrew University to develop new models to meet the sophisticated requirements of modern agriculture. Naan offers a wide range of sprinklers for all conditions of climate, soil, crop and water availability.

Naan-Til is a revolutionary innovation. The emitter is incorporated in the tubing at the moment of extrusion, thus forming an organic, inseparable unit, ready for immediate use.

Naan's export division, Peleg Export, ships goods to more than 50 countries.

Naan Mechanical Works, Plant — Kibbutz Naan, Post Naan 73283, Main agents — Peleg, 28 Dersach Patah Tikva, Tel Aviv, Tel. 332872, Export — Peleg Export, 21 Mikva Yisrael, Tel Aviv, Tel. 03-624884, 622828.

NETAFIM

Irrigation Equipment and Drip Systems

Netafim, the world leader in drip irrigation systems, has developed a pressure compensated dripper that has proved very efficient in difficult topographic conditions. The system also works well with low water quality and pressure (irrigation begins with an entry pressure of 5 m) and with long lateral lines.

Netafim, which is owned and operated jointly by Hatzrufim, Magal and Yiftah, exports products and know-how to 47 countries. Netafim systems can be used for watering cotton, corn, tomatoes, onions, eggplant, peppers, cucumbers, melons, etc. and for irrigating vineyards and orchards — avocado, mango, citrus, banana, and deciduous fruits. Netafim systems have also performed impressively with flower cultivation.

Netafim Yiftah, Kibbutz Yiftah, Mobile Post Marom Hagallil 13 840, Tel. 067-42781.

KIBBUTZ INDUSTRIES

Selected List — Advertising Section

NIR LAT

Latex Products

Nir Lat, one of the largest companies in latex products in Israel, makes disposable medical and surgical items, such as uniforms, gloves and tubing. Nir Lat also produces latex compounds for sealing, covering and water-proofing, including do-it-yourself compounds for water-proofing roofs.

Nir Lat has an advanced laboratory for the development of new products. The plant employs 25 people. The highest safety and technological standards are observed.

Nir Lat, Kibbutz Nir Oz, Mobile Post Negov 85 122, Israel, Tel. 057-82688, 82689.

NOGA SHOES

The large plant at Kibbutz Givat Hahashoha has 50 years' experience in producing footwear. Their work boots and safety boots have been exported for some years, and their army boots ("paratrooper's boots") are used by the Israel Defense Forces, and are also exported. Noga also manufactures special camping boots.

Work and safety boots may be ordered with three types of sole: natural rubber (IDF pattern), polyurethane, and PVC. Boots may be ordered with various combinations of upper and sole materials. The company makes football boots of leather, of international standard.

Noga safety boots have successfully passed the tests of the Israel Safety and Hygiene Institute.

Noga Shoes, Kibbutz Givat Hahashoha, Post Givat Hahashoha, Tel. 081-22379, Sales office, 12 Rehov Harakevet, Tel Aviv, Tel. 811808, 824712.

PALTECHNICA

Orthopaedic Seating

In 1969, Kibbutz Nitzanin, near Ashkelon acquired a small office chair factory. Now, Paltechnica is one of Israel's most important suppliers of orthopaedic seating, properly engineered to avoid backache and other serious medical problems.

All Paltechnica's swivel chairs are equipped with a pneumatic or "Liftomatic" raising device, and a precast aluminum base with five legs.

Among the factory's products typists' chairs, draughtmen's chairs, office armchairs with adjustable seat and rocking device, dentist's chairs, and laboratory and factory chairs.

Paltechnica also produces a wide range of home chairs, one of them, for example, is a child's seat with a foot support, adjustable according to the user's height.

Paltechnica, Mobile Post Eilat 79290, Tel. 081-22379, Sales office, 12 Rehov Harakevet, Tel Aviv, Tel. 811808, 824712.

SCOPUS OPTICAL INDUSTRY

The firm markets optical and other high quality products of acrylic materials, including spherical and cylindrical ophthalmic lenses, 72 and 86 mm., of CR-39. Lenses for sun glasses are produced from the same material. A special department handles gift and advertising items (special orders).

Periscopes and other precision items — prisms, rods, sheets, etc. — are also made.

Scopus exports to North, Central and South America, Europe, Australia and the Far East.

Scopus Optical Industry, Kibbutz Maayan Zvi, Mobile Post Hof Hacarmel, Israel, Tel. 063-90787, Telex 46204 SCOPUS IL.

SOOLIT RUBBER INDUSTRY

Treads for Tyre Retreading

Soolit produces high quality, pre-cured rubber treads for vehicle tyres — cold retreading, camel back, cushion gum, and other retreading materials.

The high quality achieved is the result of the technology (the very latest) and advanced equipment used, the highly skilled staff, and the very strict quality control.

Soolit tread is long lasting, and therefore less expensive per kilometre. Fifty-six different tread sizes and patterns are produced, for various road and weather conditions.

Eighty-five per cent of production is exported to many countries, where it competes successfully with the best European products.

Soolit Rubber Industry, Kibbutz Kfar Hamecabal, 30030 Israel, Tel. 04-443022, Telex 45179 SULLIT IL.

TAMA PLASTIC INDUSTRIES

The main products of this 30 year old factory can be classified as follows: COMPRESSION Moulding: tableware, high quality, heat resistant, various colours. Urea resin seats (several models) Injection moulding. Specialized in the production of technical components to customer's requirements, in thermoplastic and thermosetting materials.

EXTRUSION PE film for knitted sleeves for retail packaging. Highest possible quality assured by the use of up-to-date equipment. PP twines and ropes for agriculture and industry.

KNITTING Agricultural sacks, wind breakers and shade nets.

REINFORCED PLASTICS Military helmets produced from Kevlar and nylon, and specialized reinforced plastic products. Tama Plastic Industries, Kibbutz Moshav Ha'emek and Galed, Post Moshav Ha'emek 19263, Tel. 04-981171, Telex 48879 IL.

TELDOR WIRES AND CABLES LTD.

Teldor is a modern and continuously expanding wire and cable plant which manufactures more than 2000 products for the electronics, telecommunications, electrical and building industries.

Cables are produced with various dielectrics: including polyvinyl chloride (PVC), polyethylene, both foamed and solid, PTFE (Teflon), FEP (Teflon), ETFE (Tefzel), Kapton, nylon, etc.

Modern machinery as well as sophisticated testing equipment and an efficient, experienced engineering staff insure high quality products. Many are exported to different parts of the world. Teldor manufactures wires and cables under the know-how licence of Studer Kabelwerke of Switzerland and Champion Cable Corp. of the United States.

Teldor Wires and Cables Ltd., Kibbutz Ein Dor, Post Yotvot, Tel. 087-67422, Telex 8864 Teldor.

TZEMAKH DATES

The dates are grown by the See of Gethse and the River Jordan, 200 m below sea level, in conditions — climate, water and soil — ideal for their growth. Tzemakh produces fresh and dried dates, and a date spread for use on bread, for pastry filling, and in milk shakes and ice cream. The spread is made by modern machinery from fresh dates under strictly hygienic conditions.

Products include loose dates in 5 and 10 kg cartons, in transparent wrapping (250 g.), in fancy wrapping (200 g.), pressed, dried dates in 250 and 500 g. packages; mid date spread in 450 g. containers and small vacuum packages with no preservative.

Tzemakh Date Packing Plant, Mobile Post Jordan Valley, Israel, Tel. 067-61076, 067-61880, Telex 6680 DSPRA.

Roses, Radishes, Raspberries, Ruscus, Rainwater, Rhododendrons, Roof gardens,

You'll find out